

Appl. No. 09/873,309
Amtd. Dated January 7, 2005
Reply to Office action of December 1, 2004
Attorney Docket No. P13294-US1
EUS/J/P/05-1008

REMARKS/ARGUMENTS

1.) Allowable Subject Matter

The Examiner objected to claims 15 and 17 as being dependent upon rejected base claims, but indicated such claims would be allowable if rewritten in independent form, including all of the limitations of their respective base claims and any intervening claims. The Applicants thank the Examiner for the indication of allowable subject matter. The Applicants, however, believe the respective base claims are patentable over the references of record and, therefore, decline to so amend claims 15 and 17.

2.) Claim Rejections – 35 U.S.C. § 103 (a)

The Examiner rejected claims 1-13, 16 and 18-20 as being unpatentable over Baum, et al. (US 6,385,462 B1) in view of Chuah, et al. (US 6,693,952 B1), and claim 14 as being unpatentable over Baum in view of Chuah and in further view of Balachandran, et al. (US 6,567,375 B2). The Applicants traverse the rejections.

Claim 1 recites:

1. A method of transmitting information in a radio communication system comprising at least one transmitter and at least one receiver, the method comprising the steps of:

transmitting first information in a first channel from the at least one transmitter to the at least one receiver, using in the transmitting a modulation and/or coding scheme and adapting the modulation and/or coding scheme to give a secure communication of the first information, and

transmitting second information in a second channel from the at least one transmitter to the at least one receiver and setting the power used for transmitting in the second channel to give a secure communication of the second information, wherein in the step of transmitting the first information, the choice of the modulation and/or coding scheme is controlled by the level of the power at each instant set for transmitting in the second channel. (emphasis added)

As described in Applicants' specification, the claimed invention selects a modulation and coding scheme on a shared first channel based on the instantaneous transmit power of a second channel, which is dedicated ("unique") for each user. The Applicants' invention recognizes that in some systems, such as CDMA-based systems, the

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dedicated channel (e.g., dedicated physical channel "DPCH") is power-controlled, and thus the signal-to-interference ratio at the receiver is, more or less, constant; i.e., no information about the varying radio channel quality is available at the receiver. Furthermore, using the transmitted power level of the dedicated (second) channel to control the modulation and coding scheme of the shared first channel, rather than the received power level, eliminates the need for feedback signaling from the receiver (e.g., mobile station) to the transmitter (e.g., base station). The Examiner has not pointed to any teaching in Chuah or Baum, in either his "Response to [Applicants'] Arguments" or paragraph 3 of the Final Office Action, that discloses those claimed features and, thus, has failed to establish a *prima facie* case of obviousness.

As the Examiner notes with respect to claim 1, Baum does not teach "a first channel transmitting first information and a second channel transmitting second information." (OA, page 4) To overcome that deficiency of Baum, the Examiner has looked to the teachings of Chuah, stating that Chuah teaches "a first channel transmitting first information and a second channel transmitting second information." The Examiner also asserts that Baum teaches "wherein in the step of transmitting said information, the choice of the modulation and/or coding scheme is controlled by the level of the power at each instant set (column 4, lines 22-25)." Even assuming that Baum does teach what the Examiner asserts, that is not what the Applicant has claimed. The limitation of claim 1 to which the Examiner refers actually states that: "wherein in the step of transmitting the first information [on the first channel], the choice of the modulation and/or coding scheme is controlled by the level of the power at each instant set for transmitting in the second channel." (emphasis added). In other words, the transmit power of a second channel is used to control the choice of modulation and/or coding scheme on the first channel. This is not disclosed by Baum.

In the Examiner's rejection of claim 1, he states that Baum discloses "using in the transmitting a modulation and/or coding scheme and adapting the modulation and/or coding scheme to give a secure communication of the information" . . . "and setting the power used for transmitting said information . . ." (emphasis added). As stated by the Examiner, it appears that he equates "said information" to the same information in the

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first part. This is incorrect. A plain reading of claim 1 makes it clear that the first part refers to "first information" and the second part refers to "second information." But most importantly, claim 1 states that the modulation/coding scheme of the first link is adjusted as a function of the transmit power of the second link. In contrast, Baum describes varying the modulation/coding scheme for a link as a function of the transmit power of the same link.

Chuah provides no teaching that overcomes the deficiencies of Baum. As best, as noted by the Examiner, Chuah merely describes a first channel transmitting first information and a second channel transmitting second information. Chuah fails to provide any teaching to overcome the failure of Baum to disclose the selection of a modulation scheme and/or coding rate on a first channel as a function of the transmit power of a second channel, as recited in Applicants' claim 1.

At column 4, lines 22-25, as referenced by the Examiner, Baum teaches: "A modulation/coding rate unit 109 assigns a modulation/coding rate to each of the planned links based on a signal quality associated with the transmit power assigned to the link." (emphasis added) In other words, Baum discloses using the signal quality associated with the transmit power assigned to a link to control the choice of modulation and/or coding scheme on that same link. This aspect of Baum is not the same as the limitation of claim 1, which recites that the transmit power of a second channel is used to control the choice of modulation and/or coding scheme on the first channel. The Examiner essentially concedes that Baum fails to disclose that claim limitation by stating that "Baum does not specifically teach a first channel transmitting first information and a second channel transmitting second information." (OA, page 4; emphasis added) If Baum doesn't teach such first and second channels, then it can't teach using the transmit power of a second channel to control the choice of modulation and/or coding scheme on the first channel. Therefore, whereas Baum and Chuah fail to disclose the claimed limitation, the Examiner has failed to establish a *prima facie* case of obviousness of claim 1.

Whereas independent claims 16 and 18 recite limitations analogous to those of claim 1, those claims are also patentable over Baum in view of Chauh. Furthermore,

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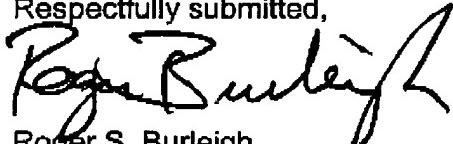
whereas claims 2-14 are dependent from claim 1 and claim 20 is dependent from claim 16, and include the limitations of their respective base claims, those claims are also patentable over Baum in view of Chauh. The Applicants, therefore, respectfully request that the Examiner withdraw the rejection of claims 1-14, 16 and 18-20.

CONCLUSION

In view of the foregoing remarks, the Applicants believe all of the claims currently pending in the Application to be in a condition for allowance. The Applicants, therefore, respectfully request that the Examiner withdraw all rejections and issue a Notice of Allowance for claims 1-20.

The Applicants request a telephonic interview if the Examiner has any questions or requires any additional information that would further or expedite the prosecution of the Application.

Respectfully submitted,



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